

5. Natural Gas Liquids Statistics

Natural Gas Liquids

Proved Reserves

U.S. natural gas liquids proved reserves decreased 6 percent to 7,524 million barrels in 1998 (**Table 13**). A reassessment of natural gas liquids in Alaska represents the bulk of the 1998 change. Reserve additions replaced only 46 percent of 1998 natural gas liquids production.

The reserves of six areas account for 81 percent of the Nation's natural gas liquids proved reserves.

Area	Percent of U.S. NGL Reserves
Texas	34
Gulf of Mexico Federal Offshore	12
New Mexico	12
Utah-Wyoming	9
Oklahoma	9
Louisiana	5
Area Total	81

The volumes of natural gas liquids proved reserves and production shown in **Table 13** are the sum of the natural gas plant liquid volumes listed in **Table 14** and the lease condensate volumes listed in **Table 15**.

Discoveries

Total discoveries of natural gas liquids reserves decreased by 27 percent from 1997 to 1998. Areas with the largest *total discoveries* were:

- Texas (39 percent)
- Gulf of Mexico Federal Offshore (21 percent)
- New Mexico (13 percent)
- Louisiana (11 percent)
- Utah and Wyoming (7 percent)
- Oklahoma (6 percent).

New field discoveries in 1998 (66 million barrels) were 42 percent lower than in 1997. Areas with the largest *new field discoveries* were the Gulf of Mexico Federal

Offshore (56 percent of 1998 new field discoveries) and Texas (32 percent).

New reservoir discoveries in old fields (88 million barrels) were 2 percent less than what they were in 1997. Areas with the largest *new reservoir discoveries in old fields* were the Gulf of Mexico Federal Offshore (44 percent of 1998 new reservoir discoveries in old fields), Texas (28 percent), and Louisiana (20 percent).

Extensions were 383 million barrels, a decrease of 28 percent from 1997 to 1998. Areas with the largest *extensions* were Texas (43 percent of 1998 extensions), New Mexico (18 percent), Utah-Wyoming (10 percent), and the Gulf of Mexico Federal Offshore (10 percent).

Production

Natural gas liquids production was an estimated 833 million barrels in 1998. Alaska production decreased 31 percent to 24 million barrels in 1998, while lower 48 States production decreased 2 percent to 809 million barrels in 1998.

Six areas accounted for about 87 percent of the Nation's natural gas liquids production.

- Texas (38 percent)
- Gulf of Mexico Federal Offshore (17 percent)
- New Mexico (9 percent)
- Oklahoma (9 percent)
- Louisiana (8 percent)
- Utah-Wyoming (6 percent).

Natural Gas Plant Liquids

Proved Reserves

Natural gas plant liquids proved reserves decreased 7 percent in 1998 to 6,188 million barrels (**Table 14**). Six areas accounted for about 82 percent of the Nation's natural gas plant liquids proved reserves:

Table 13. Natural Gas Liquids Proved Reserves, Reserves Changes, and Production, 1998
(Million Barrels of 42 U.S. Gallons)

State and Subdivision	Published Proved Reserves 12/31/97	Changes in Reserves During 1998							Proved Reserves 12/31/98
		Adjustments (+,-)	Revision Increases (+)	Revision Decreases (-)	Extensions (+)	New Field Discoveries (+)	New Reservoir Discoveries in Old Fields (+)	Estimated Production (-)	
Alaska	631	-287	1	1	0	0	0	24	320
Lower 48 States	7,342	-74	1,301	1,093	383	66	88	809	7,204
Alabama	93	0	4	8	0	0	0	8	81
Arkansas	7	0	1	3	0	0	0	0	5
California	95	-20	20	17	1	0	0	7	72
Coastal Region Onshore	9	1	4	4	0	0	0	1	9
Los Angeles Basin Onshore	4	1	1	1	0	0	0	0	5
San Joaquin Basin Onshore	82	-22	15	12	1	0	0	6	58
State Offshore	0	0	0	0	0	0	0	0	0
Colorado	264	-54	86	20	4	0	0	20	260
Florida	17	2	0	0	0	0	0	1	18
Kansas	271	81	27	18	1	0	0	28	334
Kentucky	48	8	1	2	1	0	1	3	54
Louisiana	437	-36	103	85	33	7	18	66	411
North	80	-24	22	15	2	0	0	8	57
South Onshore	333	-12	69	66	31	6	17	53	325
State Offshore	24	0	12	4	0	1	1	5	29
Michigan	50	-1	13	7	0	1	0	5	51
Mississippi	6	4	2	4	1	0	0	1	8
Montana	5	-1	1	0	0	0	0	0	5
New Mexico	869	84	121	135	68	0	1	79	929
East	273	-18	63	43	28	0	1	42	262
West	596	102	58	92	40	0	0	37	667
North Dakota	47	1	4	2	2	0	0	4	48
Oklahoma	685	1	166	109	32	0	2	79	698
Texas	2,687	-90	479	425	163	21	25	316	2,544
RRC District 1	54	-15	6	6	3	0	0	4	38
RRC District 2 Onshore	87	-1	13	15	9	0	6	14	85
RRC District 3 Onshore	286	-18	64	66	20	3	6	49	246
RRC District 4 Onshore	347	-17	75	69	71	2	10	56	363
RRC District 5	35	-4	13	10	5	0	0	4	35
RRC District 6	260	7	72	51	16	0	0	28	276
RRC District 7B	59	-11	3	10	0	16	0	6	51
RRC District 7C	327	-27	38	29	7	0	0	34	282
RRC District 8	459	72	79	80	13	0	3	55	491
RRC District 8A	290	-44	28	30	1	0	0	19	226
RRC District 9	98	2	13	10	3	0	0	13	93
RRC District 10	382	-32	71	48	15	0	0	34	354
State Offshore	3	-2	4	1	0	0	0	0	4
Utah and Wyoming	761	-85	99	91	39	0	0	48	675
West Virginia	71	0	7	4	0	0	2	4	72
Federal Offshore ^a	920	35	165	163	38	37	39	140	931
Pacific (California)	14	0	0	1	0	0	0	1	12
Gulf of Mexico (Louisiana) ^a	785	17	132	130	31	34	27	120	776
Gulf of Mexico (Texas)	121	18	33	32	7	3	12	19	143
Miscellaneous ^b	9	-3	2	0	0	0	0	0	8
U.S. Total	7,973	-361	1,302	1,094	383	66	88	833	7,524

^aIncludes Federal offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." They may differ from the official Energy Information Administration production data for natural gas and natural gas liquids for 1998 contained in the publications *Petroleum Supply Annual 1998*, DOE/EIA-0340(98) and *Natural Gas Annual 1998* DOE/EIA-0131(98).

Source: Energy Information Administration, Office of Oil and Gas.

Table 14. Natural Gas Plant Liquids Proved Reserves and Production, 1998
(Million Barrels of 42 U.S. Gallons)

State and Subdivision	1998 Reserves	1998 Production	State and Subdivision	1998 Reserves	1998 Production
Alaska	320	24	North Dakota	41	4
Lower 48 States	5,868	631	Oklahoma	613	69
Alabama	31	4	Texas	2,262	270
Arkansas	3	0	RRC District 1	32	5
California	71	7	RRC District 2 Onshore	75	10
Coastal Region Onshore	9	1	RRC District 3 Onshore	169	33
Los Angeles Basin Onshore	5	0	RRC District 4 Onshore	267	42
San Joaquin Basin Onshore	57	6	RRC District 5	31	4
State Offshore	0	0	RRC District 6	235	23
Colorado	235	18	RRC District 7B	48	6
Florida	18	1	RRC District 7C	266	31
Kansas	331	28	RRC District 8	479	53
Kentucky	53	3	RRC District 8A	226	19
Louisiana	234	37	RRC District 9	91	13
North	34	5	RRC District 10	342	33
South Onshore	187	29	State Offshore	1	0
State Offshore	13	3	Utah and Wyoming	600	40
Michigan	43	4	West Virginia	71	4
Mississippi	3	0	Federal Offshore ^a	370	68
Montana	5	0	Pacific (California)	8	1
New Mexico	876	74	Gulf of Mexico (Louisiana) ^a	341	63
East	243	39	Gulf of Mexico (Texas)	21	4
West	633	35	Miscellaneous ^b	8	0
			U.S. Total	6,188	655

^aIncludes Federal Offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." They may differ from the official Energy Information Administration production data for natural gas plant liquids for 1998 contained in the publications *Petroleum Supply Annual 1998*, DOE/EIA-0340(98) and *Natural Gas Annual 1998*, DOE/EIA-0131(98).

Source: Energy Information Administration, Office of Oil and Gas.

Table 15. Lease Condensate Proved Reserves and Production, 1998
(Million Barrels of 42 U.S. Gallons)

State and Subdivision	1998 Reserves	1998 Production	State and Subdivision	1998 Reserves	1998 Production
Alaska	0	0	North Dakota	7	0
Lower 48 States.	1,336	178	Oklahoma	85	10
Alabama	50	4	Texas	282	46
Arkansas	2	0	RRC District 1	6	1
California	1	0	RRC District 2 Onshore	10	4
Coastal Region Onshore	0	0	RRC District 3 Onshore	77	16
Los Angeles Basin Onshore	0	0	RRC District 4 Onshore	96	14
San Joaquin Basin Onshore	1	0	RRC District 5	4	0
State Offshore	0	0	RRC District 6	41	5
Colorado	25	2	RRC District 7B	3	0
Florida	0	0	RRC District 7C	16	3
Kansas	3	0	RRC District 8	12	2
Kentucky	1	0	RRC District 8A	0	0
Louisiana	177	29	RRC District 9	2	0
North	23	3	RRC District 10	12	1
South Onshore	138	24	State Offshore	3	0
State Offshore	16	2	Utah and Wyoming	75	8
Michigan	8	1	West Virginia	1	0
Mississippi	5	1	Federal Offshore ^a	561	72
Montana	0	0	Pacific (California)	4	0
New Mexico	53	5	Gulf of Mexico (Louisiana) ^a	435	57
East	19	3	Gulf of Mexico (Texas)	122	15
West	34	2	Miscellaneous ^b	0	0
			U.S. Total	1,336	178

^aIncludes Federal Offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves" 1998.

Source: Energy Information Administration, Office of Oil and Gas.

Area	Percent of U.S. Gas Plant Liquids
Texas	37
New Mexico	14
Utah-Wyoming	10
Oklahoma	10
Gulf of Mexico Federal Offshore	6
Kansas	5
Area Total	82

Production

Natural gas plant liquids production decreased 5 percent in 1998—from 690 million barrels in 1997 to 655 million barrels of production (**Table 14**). The top six areas for proved reserves of natural gas plant liquids accounted for about 83 percent of the Nation's natural gas plant liquids production:

- Texas (41 percent)
- New Mexico (11 percent)
- Oklahoma (11 percent)
- Gulf of Mexico Federal Offshore (10 percent)
- Utah and Wyoming (6 percent)
- Kansas (4 percent).

Natural gas processing plants are usually located in the same general area where the natural gas is produced. Table E4 in Appendix E lists the volumes of natural gas produced and processed in the same State, and the volumes of liquids extracted.

Lease Condensate

Proved Reserves

Proved reserves of lease condensate in the United States were 1,336 million barrels in 1998 (**Table 15**). This was less than 1 percent less than the volume

reported in 1997. The reserves of five areas account for about 88 percent of the Nation's lease condensate proved reserves.

Area	Percent of U.S. Condensate Reserves
Gulf of Mexico Federal Offshore	42
Texas	21
Louisiana	13
Oklahoma	6
Utah-Wyoming	6
Area Total	88

Production

Production of lease condensate was 178 million barrels, an increase of 4 million barrels, or 2 percent, in 1998. The production of five areas account for about 92 percent of the Nation's lease condensate production.

- Gulf of Mexico Federal Offshore (40 percent)
- Texas (26 percent)
- Louisiana (16 percent)
- Oklahoma (6 percent)
- Utah-Wyoming (4 percent).

Reserves in Nonproducing Reservoirs

Like crude oil and natural gas, not all lease condensate proved reserves were contained in reservoirs that were producing during 1998. Proved reserves of 530 million barrels of lease condensate, an increase of 6 percent from 1997, were reported in nonproducing reservoirs in 1998 (**Appendix D, Table D10**). These reserves were reported by Category I and Category II operators who collectively accounted for more than 97 percent of total lease condensate production. About 63 percent of the nonproducing lease condensate reserves were located in the Gulf of Mexico Federal Offshore.